Central Valley Regional Water Quality Control Board Long-term Irrigated Lands Regulatory Program Public Workshop Comments Response Summary

September 29, 2008

In March and April 2008, the Central Valley Regional Water Quality Control Board (Regional Water Board) conducted four public workshops to gather comments and feedback regarding the development of a Long-term Program for regulating discharges from irrigated agricultural lands. Background documents for the workshops are available on the Regional Water Board's website at: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/long_term_program_development/mar_apr_2008_scoping_mtgs/comment_letters/.

This response summary includes grouped and generalized versions of the comments recorded at the workshops and any written comments received on or before June 30, 2008. The written comment letters are available on the Regional Water Board's website at the address shown above. Each generalized comment is numbered and shown in "bold" type with Regional Water Board responses in "normal" type.

For more information regarding the Regional Water Board's long-term irrigated lands regulatory program you may contact Adam Laputz at (916) 464-4848 or by email at awlaputz@waterboards.ca.gov.

Long-term Program Update

There were numerous comments and suggestions received that will be addressed during the development of the Long-term Program. In addition, comments were received that the Regional Water Board has already began addressing which have influenced the development of the Long-term Program. These comments are summarized below:

- The Long-term Program must be coordinated with other regulatory programs

- The Regional Water Board needs to review existing groundwater quality data to determine whether the Long-term Program should address discharges to groundwater

- The Regional Water Board should actively work with industry, commodity groups, and coalitions in the development of the Long-term Program

In order to address the concerns regarding Long-term Program coordination, the Regional Water Board has held meetings with the Department of Pesticide

Regulation (DPR) and County Agricultural Commissioners. Regional Water Board and DPR are working together to develop Long-term Program alternatives that are coordinated, promoting program efficiency and minimizing duplication of efforts. Also, the Regional Water Board has assigned dairy program staff resources to help develop the long-term irrigated lands regulatory program to promote internal coordination. The Regional Water Board will continue to make every effort to develop an efficient and coordinated Long-term Program.

In response to comments received regarding review of existing groundwater data, the Regional Water Board has begun gathering and analyzing existing groundwater monitoring data for nitrates in the Central Valley. These and other data will be used to better understand the quality of groundwater in the Central Valley and to help determine whether agricultural waste discharges to groundwater should be addressed in the Long-term Program.

The Regional Water Board has been actively meeting with industry, coalition groups, and other stakeholders in response to comments received regarding public participation. Also, the Regional Water Board is developing a project plan and stakeholder process that will provide a clear timeline and framework for stakeholder involvement during the development of the Long-term Program. The project plan will be posted on the Regional Water Board's internet site in October 2008. Stakeholders and other interested parties will be able to access the plan to stay informed on the project, and also to see when public input phases will occur.

Comment Response Summary

A. Antidegradation

1. Will the Existing Conditions Report be used as a baseline for an antidegradation analysis?

The purpose of the Existing Conditions Report (ECR) is to provide a measure of baseline water quality in the Central Valley for estimating potential impacts of the proposed Long-term Irrigated Lands Regulatory Program (Long-term Program) on water quality, including any anticipated degradation of water quality.

2. **The Long-term Program should prohibit any degradation of water quality where water is being used as drinking water (schools, communities), specifically in places where pesticides are accumulating (groundwater) leading to infections, cancer, and other illness.**

   The "State Antidegradation Policy," State Water Resources Control Board Resolution 68-18, does not allow surface or ground waters to be degraded unless:

   - the degradation is in the best interests of the people of the State,
   - the discharge will not unreasonably affect present and anticipated beneficial uses of the waters,
   - all applicable State and federal water quality objectives are met, and
   - any waste discharges causing the degradation use best practical treatment or control necessary to avoid pollution and nuisance and to maintain the highest water quality consistent with maximum benefit to the people of the State.

   If the Long-term Program allows degradation of any water body, the provisions of the State Antidegradation Policy must be satisfied. Degradation that is expected to result in human health impacts would not be allowed under the State Antidegradation Policy.

3. **An antidegradation analysis must be done to include cumulative impacts, potential impacts of changing cropping patterns, and adverse impacts on listed species and the environmental and human costs of failure to achieve compliance with water quality objectives. Baseline should be 1968.**

   If the staff recommended Long-term Program will allow degradation of Central Valley water bodies from the baseline water quality, then an antidegradation analysis will be conducted to provide justification that the requirements of the State Antidegradation Policy have been met (see response to comment A.2).

   The currently effective Coalition Group and Individual Conditional Waivers of Waste Discharge Requirements for Discharges From Irrigated Lands, Order No. R5-2006-0053 ("Coalition Group Waiver") and Order R5-2006-0054 ("Individual Waiver") (collectively, "Irrigated Lands Regulatory Program") include antidegradaton findings. Monitoring and Reporting requirements under this program have helped staff evaluate existing water quality in the Central Valley. Staff will now be evaluating if any degradation may be brought about through the proposed Long-term Program from the baseline condition.

   There is limited watershed specific water quality monitoring information available to describe water quality conditions in 1968 and the limited available

information may not inform the analysis because farming operations have changed since 1968 (crop types, mechanization, pesticide use and types, irrigation methods). To the extent that such data is available and informative, the Regional Board will consider it.

4. **A range of acceptable levels of a material or particulate (bacteria, salt, pesticide, nutrient) would seem to be the best approach for implementing water quality objectives in this case. Background levels of some water quality constituents change and flexibility for this variation should remain. Consistent and continued degradation should be avoided and/or mitigated.**

   Any Long-term Program must implement the requirements of the Central Valley Regional Water Quality Control Plans for the Sacramento River and San Joaquin River Basins and for the Tulare Lake Basin (Basin Plans). Therefore, the Long-term Program must, at a minimum, require that all applicable water quality objectives be met in water bodies accepting waste (nitrates, salts, pesticides) from agricultural lands. The suggested approach of avoiding and/or mitigating any consistent degradation can be used to satisfy the requirements of the State Antidegradation Policy. This approach will be considered in the development of the Long-term Program.

5. **The Long-term Program should require development of management plans for vulnerable hydraulic environments or areas where contamination is increasing regardless of whether the contamination is in violation of water quality objectives.**

   Requiring management plans for vulnerable areas, or where contamination is increasing regardless of whether water quality objectives are met, is an approach that could be used to avoid degradation of waters receiving wastes from agricultural lands. This approach will be considered in the development of the Long-term Program.

6. **The Long-term Program should continue to apply beneficial uses, instead of applying "No Degradation."**

   If the Long-term Program were to allow degradation of any waters accepting wastes from irrigated lands, the requirements of the State Antidegradation Policy must be met (see response to comment A.2). Essentially, this means that the degradation of the specified water body must be in the best interest of the people of the State, the discharge may not unreasonably affect present and anticipated beneficial uses, all applicable water quality objectives must be met, and the discharger, or grower, must implement the best practical treatment or control. The Regional Water Board may not consider degradation in certain areas or for certain constituents to be in the best

interest of the people of the State. This approach will be considered in the development of the Long-term Program.

B. Best Management Practices

1. **Coalition and industry groups are developing Best Management Practices (BMPs). This is a good place to address the Regional Water Board's concerns regarding water quality. Regional Water Board staff should compile these studies/practices and make them available to the public.**

   Available BMP information from coalition and industry groups will be considered during the development of the Long-term Program and associated Environmental Impact Report (EIR).

2. **The Long-term Program should focus more on implementation of management practices and less on studies and watershed monitoring.**

   The Regional Water Board will consider whether a shift in emphasis between management practices and watershed monitoring is needed to more effectively protect water quality.

3. **Management practices should be required proactively.**

   Requiring management practices proactively for irrigated lands operations could minimize the waste leaving irrigated lands to surface and ground waters. The current Coalition Group Waiver requires dischargers to implement management practices to achieve best practicable treatment or control. This approach will be considered in the development of the Long-term Program.

4. **The Long-term Program should describe the management practices required at each stage of implementation.**

   Requiring a specific set of management practices may prove to be difficult given the numerous types of agricultural operations and local conditions in the Central Valley (soil type, slope, irrigation method). Nevertheless, this approach will be considered in developing the Long-term Program.

5. **Specific management practices should encourage recycling and reduction of chemical use.**

   Requiring growers to proactively implement management practices, including recycling and reduction of chemical use, will be considered in the development of the Long-term Program.

6. **The Long-term Program should not dictate to a grower what standard practices and tools must be used. Flexibility is necessary to promote the most efficient use of management practices in each specific area because of differing environmental conditions (slope, soil type, irrigation method).**

   Instead of requiring specific management practices, requiring growers to select and implement appropriate practices to minimize waste discharge would provide flexibility to account for site specific conditions. This approach will be considered in developing the Long-term Program.

7. **Educational programs should be utilized to encourage the implementation of management practices.**

   Educational and outreach programs are necessary to inform growers of available management practices and to encourage effective implementation. An effective educational program will also educate growers on the requirements of the Long-term Program. Education programs will be considered in the development of the Long-term Program.

C. Current Program

1. **The coalitions are operating effectively and efficiently under the current waiver program, no other tools are necessary at this time unless specifically requested by an individual coalition.**

   A "no action" alternative of continuing the current waiver program will be considered during the development of the Long-term Program. Regional Water Board staff, along with stakeholders, will be developing and evaluating Long-term Program alternatives. If the continuation of the current program is found to be the best alternative for the Long-term Program, it will be evaluated in the EIR and considered for Regional Water Board adoption.

2. **The dairy industry has experienced first-hand how frustrating and confusing waste discharge requirements are. The current irrigated lands program watershed/sub-watershed scale gives coalitions the opportunity to identify problems and solutions, rather than placing the burdens of monitoring and reporting on individual dischargers.**

   See the response to comment C.1.

3. **Given the widespread contamination of ground and surface water supplies throughout the Central Valley it is clear that the current waiver program is not effectively protecting water quality. Therefore, waivers should not be part of the long-term irrigated lands regulatory program.**

   While water quality monitoring has shown areas where agriculture has caused exceedances of water quality objectives, the current waiver program requires that management plans be developed and implemented to address those exceedances. These plans are currently being developed and implemented. It should be noted that waiver conditions are as enforceable as waste discharge requirements. However, we will examine whether the current structure of the program is effective in improving and protecting water quality.

   The use of waste discharge requirements and conditional discharge prohibitions to regulate agricultural discharges will be evaluated in the development of the Long-term Program.

D. Long-term Program Elements

1. **The Long-term Program must include clear quantifiable yardsticks and timelines to document improvement. Measures must include: a means of 1) verification that management practices are in place, 2) quantifying management practice effectiveness, and 3) tracking management practice effectiveness through monitoring.**

   The above elements are essential to an effective non-point source regulatory program and are described in the State Water Board's May 2004 "Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program" (see Key Elements 2 and 4). The suggested elements will be considered during the development of the Long-term Program.

2. **Reports of waste discharge and individual farm-based management plans are necessary to know who is discharging, the types of pollutants being discharged, management practices that are in place, and critical habitats.**

   Reports of waste discharge and individual farm-based management plans would provide the site specific information described above. Given the number of growers that potentially fall under the irrigated lands program (estimated at 40,000), processing such a large amount of data would be an information management challenge requiring significant resources. If reports of waste discharge and individual farm-based management plans were required, then these would need to be reviewed and accepted. Requiring submission of reports of waste discharge will be considered in the Long-term Program.

Requiring that all growers develop a farm-based management plan to be kept onsite and available for review is an alternative that will also be considered in the development of the Long-term Program.

3. **The program should apply a phasing approach that focuses on high priority problems first instead of trying to address all issues at the same time.**

   The irrigated lands regulatory program covers over 7 million acres. There are numerous agriculture related water quality problems within the Central Valley which need to be addressed. Given the limited resources available to address such a large area, it is important to have a transparent process for prioritizing follow-up action. Prioritization approaches will be considered in the Long-term Program.

4. **The program should include a description of the criteria used to prioritize follow-up and resolution of water quality problems (public health and safety should rank the highest).**

   See the response to comment D.3.

5. **The program must have an adequate revenue scheme to implement and enforce the program at a level that will ensure success. The fee structure should reflect the relative threat of the permitted agricultural operations (intensive chemical use, nitrogen budget).**

   The revenue structure and resource needs will be evaluated in developing the Long-term Program. However, the Legislature and Governor determine program resource levels and the State Water Board establishes the fee structure.

6. **The program must be consistent with the State Water Board's Non-point Source Pollution Control Program, to include the specific essential non-point source "control elements."**

   The Long-term Program will be evaluated for consistency with all applicable State policies, including the State Water Board's May 2004 "Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program".

7. **The Long-term Program must include a clear approach for dealing with naturally occurring elevated background conditions and water bodies that are already contaminated.**

   Any Long-term Program adopted by the Regional Water Board must be consistent with the Basin Plan. The Basin Plan establishes water quality objectives (nutrients, salts, pesticides) that must be met in State waters to protect beneficial uses (municipal supply, aquatic life, agricultural supply). Approaches for dealing with elevated background conditions will be considered in the development of the Long-term Program.

8. **There must be a consistent way to separate irrigated lands that do have runoff and those that can never have runoff.**

   Providing guidelines for determining which irrigated lands have the potential for runoff and those that do not have runoff potential will be considered in the development of the Long-term Program.

9. **Ground and surface waters must be protected to prevent illness caused by contaminated water.**

   Any Long-term Program for discharges from agricultural lands must be consistent with the Basin Plan. This means that any waters designated as "municipal supply" that receive waste (nitrates, salts, pesticides) from agricultural lands must be protected and meet water quality objectives established for municipal use.

10. **Focusing efforts on educating agricultural operators about the importance of water quality and supporting research to identify problems and solutions are more efficient ways to use limited government funds.**

    Effective outreach and education programs will be an essential component of the Long-term Program. Alternatives for providing outreach and education will be considered in the development of the Long-term Program.

11. **The Regional Board should consider the potential for Resource Conservation Districts or some similar, smaller units to have a role in unifying the stakeholders and developing management plans.**

    Alternatives that utilize the expertise of Resource Conservation Districts, or other local entities, will be considered in the development of the Long-term Program.

12. **The Regional Board should evaluate alternatives for recognizing in a regulatory context that supply and drainage canals and other constructed water bodies may only support aquatic life to a limited extent and for short time periods. Currently, almost all water bodies are assigned municipal beneficial use, which results in a program that protects water quality to a level that is not necessary for the protection of actual existing beneficial uses.**

    Any Long-term Program must implement Basin Plan requirements and applicable State Water Board policies. The Sacramento and San Joaquin River and the Tulare Lake Basin Plans state that "beneficial uses of any specifically identified water body generally apply to its tributary streams." Therefore, in cases where water bodies feed into water bodies designated for municipal supply, the Basin Plans indicate that the municipal supply designation will likely apply. Also, the municipal beneficial use designation applies to water bodies within the basins that do not have beneficial uses designated in the appropriate Basin Plan, also referred to as "unlisted" water bodies (per State Water Board Resolution No. 88-63).

    The Basin Plans would need to be amended in order to change the beneficial use designations for specific waters within the Sacramento and San Joaquin River Basins and the Tulare Lake Basin. As part of the Basin Planning process, Regional Water Board staff are currently considering whether the beneficial uses of constructed water bodies and other valley floor waters should be re-evaluated.

13. **The program must include enforceable penalties to ensure compliance.**

    Enforceable requirements are a component of any successful regulatory program. Enforceability of program requirements will be considered in the development of the Long-term Program.

14. **State owned lands with irrigated agriculture that are not currently under a waiver or waste discharge requirements should be required to enroll in the irrigated lands regulatory program.**

    A successful Long-term Program will require that discharges from all agricultural lands are of high enough quality to ensure protection of the beneficial uses of receiving water bodies. If a significant portion of agricultural lands are not participating in the program, then discharges from these lands could undermine the effectiveness of the entire program. State owned lands with agricultural wastewater discharges will be addressed in the Long-term Program in the same manner as discharges from privately owned lands.

15. Coalitions do not want to have an enforcement role in the Long-term Program. This would take away from grower trust.

Currently, coalitions conduct monitoring, provide outreach, and develop management plans where agriculture-related water quality problems exist. Coalitions are also the Regional Water Board's primary contact to relay information to the growers.

For the Long-term Program to be effective there needs to be a local presence to assure that management practices are being implemented effectively and the requirements of the Long-term Program are being implemented by all growers. Under the current program, the Regional Water Board relies on the coalitions to provide a local presence. If the coalitions are unable or unwilling to confirm that members/growers are implementing the requirements of any adopted Long-term Program, then the Long-term Program would need to rely on another local entity or Regional Water Board staff presence to ensure that program requirements are implemented. Any legal authority to enforce the program will be reserved to the Regional Water Board.

In order to ensure that the Long-term Program will be effectively implemented, any role for coalitions must be clearly defined, including funding mechanisms, organizational structure and authorities, clear reporting of how grower fees are spent, and mechanisms for ensuring that coalition members are implementing the requirements of the Long-term Program.

16. Agricultural operators who are already implementing best management practices to protect water quality should be rewarded for their efforts. Incentives should be used to encourage participation in the program. Perhaps "green" labeling could be used.

Including incentives for implementing management practices and proactively complying with the Long-term Program would be appropriate. Including incentives will be considered in the development of the Long-term Program.

E. Categorization of Long-term Program Requirements

1. The Long-term Program should not be categorized by geography, climate, commodity, soil type, operations, or threat to water quality. Subdividing regulatory requirements will put the burden of determining where growers belong on the coalitions and may be complicated for growers with multiple crops.

Categorizing requirements would increase the complexity of the Long-term Program. However, categorizing requirements also allows a more focused approach for addressing different types of operations. A categorized program may be more effective at protecting water quality if requirements can be efficiently tailored for specific types of discharges. These potential benefits along with the potential loss of program implementation efficiency and additional costs associated with categorizing requirements will be weighed in the development of the Long-term Program.

2. Due to the variability of agricultural operations in the Central Valley, it makes sense to categorize Long-term Program requirements. Suggested grouping categories included:

- **Threat to water quality**
- **Geography**
- **Crop type**
- **Operations (organic)**
- **Size of operations**
- **Water usage**

Categorization of Long-term Program requirements is an option that will be considered in the development of the Long-term Program. Alternatives will be evaluated based on measures such as: costs to growers and the State, estimated effectiveness, efficiency, economic effects, equity/fairness, and potential environmental effects.

3. The hydrology and water quality issues of the Sacramento and San Joaquin Basins are not applicable to the Tulare Lake Basin. Tulare Lake Basin irrigated agriculture dischargers are more appropriately regulated under general waste discharge requirements.

Developing a specific set of requirements for agricultural discharges within the Tulare Lake Basin (geographical categorization) is an option that will be considered in the development of the Long-term Program. As described above in comment E.2, alternatives will be evaluated to determine the recommended approach.

4. Program alternatives should include general waste discharge requirements for similar types of discharges or areas, and individual waste discharge requirements for highly vulnerable areas.

The adoption of general waste discharge requirements for agricultural discharges will be considered in the development of the Long-term Program.

Where vulnerable areas are identified that warrant individual oversight, individual waste discharge requirements will be considered. The California Water Code grants the Regional Water Board broad authority to prescribe waste discharge requirements for discharges of waste to ground and surface waters. The development of a waiver or general waste discharge requirements as part of a Long-term Program for agricultural discharges does not preempt the Regional Water Board from adopting additional, individual waste discharge requirements for high priority discharges to vulnerable areas. In the event that the Long-term Program requirements do not fit a specific high priority discharge, the Regional Water Board can adopt individual waste discharge requirements at any time.

F. Long-term Program Coordination

1. Counties have been collecting groundwater data. Consider coordination with local efforts to gather information.

The Regional Water Board will be working with other agencies that monitor groundwater during the development of the Long-term Program.

2. Coordinate with the Department of Pesticide Regulation (DPR).

Regional Water Board and DPR staff have been meeting to discuss the potential of coordinating ground and surface water regulatory programs. During the development of the Long-term Program, Regional Water Board staff will be reviewing groundwater monitoring data from multiple sources [DPR, State Water Board's Groundwater Ambient Monitoring and Assessment (GAMA) program] to try and determine whether agricultural discharges to groundwater should be regulated under the irrigated lands regulatory program. During this analysis, staff will also be looking at other ground and surface water regulatory programs, including DPR's Groundwater Protection Program, for potential coordination and to prevent duplication of efforts in the event that the Regional Water Board were to include groundwater in the irrigated lands regulatory program.

3. **DPR has not determined the effectiveness of its monitoring program; the lack of such a determination should be considered when evaluating the potential for coordination.**

   As part of the review of DPR's Groundwater Protection Program and the potential for coordination (see response to comment F.2) Regional Water Board and DPR staff will be evaluating whether the goals, scope, authorities, and monitoring of DPR's program are aligned with California Water Code and Basin Plan requirements. Should the Regional Water Board decide to include groundwater in the Long-term Program, a coordinated program alternative will likely include the necessary authorities from DPR and State Water Board regulations, and will be aimed to prevent duplicative efforts.

4. **The Long-term Program should be coordinated with other regulations already in place to protect water quality in order to avoid additional expense and duplication.**

   The Regional Water Board will make every effort to coordinate the long-term irrigated lands regulatory program with other existing regulations and requirements. This includes coordinating with the Regional Water Board's Dairy Program.

5. **The Regional Water Board should consider non-regulatory programs, such as the successful Sustainable Wine Growers Program.**

   Regional Water Board staff agrees that other non-regulatory programs should be considered. The Sustainable Wine Growers Program and Fish Friendly Farming are a few examples that will be considered.

6. **Alternatives should be proposed that make use of agreements between the Regional Water Board and county Agricultural Commissioners (e.g., existing Memorandum of Understanding with Butte and Glenn Counties).**

   Regional Water Board staff agrees that agreements with county Agricultural Commissioners should be pursued. Staff have initiated discussions with Agricultural Commissioners in order to determine what role Commissioners should take in the Long-term Program, and how to develop structured alternatives that can make use of their expertise.

G. Economics

1. **The economic analysis should include compliance costs and a measure of how the program impacts agriculture and the California economy. For example, the loss of agricultural operations caused by economic burdens negatively affects the entire region's economy.**

   Costs to the agricultural community is a factor that will be examined in developing the Long-term Program. Estimating potential economic impacts to the State's economy is more difficult considering the numerous parameters that impact local and global economies. Potential economic concerns that are brought forward by interested parties will be considered; however, an analysis of economic impacts (other than cost) to the regional and State economy is not currently within the planned scope of this project (Long-term Program and EIR).

2. **Small operations could be disproportionately impacted by increased costs.**

   The potential impact on smaller operations from any increased cost associated with the Long-term Program will be considered.

3. **The Regional Water Board should consider the economic burden to farmers (grower time, resources). Excessive regulation could force growers out of the area. Additional regulation and costs must be justified through research of environmental problems; and a cost/benefit analysis must be done on any additional proposed regulations.**

   The cost to growers will be considered in the development of the Long-term Program (per California Water Code section 13141). The cost of additional monitoring requirements will be evaluated to ensure that the burden to the growers bears a reasonable relationship to the need for and benefits to be obtained from monitoring [per California Water Code section 13267(b)(1)]. The Regional Water Board will work towards the development of an efficient Long-term Program that minimizes cost and protects water quality.

4. **Growers are assessed a fee that ranges from $0.85 per acre to potentially $10 per acre to fund the current program. Growers are unable to recoup the regulatory costs by raising commodity prices. Most agriculture is subject to a world market that establishes prices for commodities.**

   Regional Water Board staff acknowledges that growers are unable to recoup regulatory costs by raising commodity prices and will consider this in the development of the Long-term Program.

5. How will the Long-term Program be funded?

Approximately 1/3 of the current irrigated lands regulatory program costs are funded by fees paid by growers. The State general fund provides the remaining 2/3. It is likely that the Long-term Program will continue to be funded through a mix of grower fees and general funds. However, funding decisions are made by the Legislature and Governor. The State Water Board establishes fees based on the provisions in the State budget.

6. The economics analysis should include an evaluation of communities whose water treatment costs due to contamination cause rates to exceed the national standard of 1.5% of the median household income.

The cost to communities with impacted groundwater will be considered to the extent that the proposed Long-term Program will reduce or impose additional water treatment costs.

7. Regulating irrigated agricultural discharges (surface and groundwater) will increase State expenses, but it is preferable to prevent pollution than to clean up later.

Regional Water Board staff agrees that controlling pollution through source control is more effective than trying to clean up existing problems and will consider this when developing the Long-term Program.

H. Long-term Program Equity

1. Consider a watershed approach for solving the complex water quality issues within the Central Valley. Most Central Valley waterways are multi-use or multi-source. Other parties that utilize or discharge to the watershed should be involved in monitoring and investigating exceedances. Irrigated lands should not bear this burden alone.

A watershed approach is an effective way to bring all parties that discharge to a watershed together. Regional Water Board staff agrees that agriculture should not bear the entire burden for solving problems that are the result of multiple watershed influences. A regional monitoring program has also been suggested that would be funded by all watershed dischargers to solve complex problems (see comment J.5). A watershed-based approach, and regional monitoring will be considered in the development of the Long-term Program.

I. Environmental Impact Report (EIR)

1. Consider accepting comments on the revised Existing Conditions Report (ECR). Regional Water Board staff have changed and farmers are more engaged.

In order to move into the EIR phase of the Long-term Program, the ECR must be finalized. Opening the ECR to comments another time would significantly delay the Long-term Program development. It is also important to note that the ECR is part of the EIR, and that the draft EIR will have a comment period. However, comments on the ECR related to the development of the Long-term Program and EIR will be accepted during the draft EIR comment period.

2. The EIR and Long-term Program must include specific goals, milestones, measures of success, financial assurances that the program can be implemented, consequences for failure, and mitigation measures to ensure that the program will be successfully implemented and water quality standards will be achieved.

The Regional Water Board will consider inclusion of each of these elements in the Long-term Program and EIR.

3. The EIR must include a no action alternative.

The EIR will include a no action alternative.

4. The EIR must include a baseline report of conditions currently existing on Central Valley agricultural lands. The baseline report must include specific biological resources, acreages involved, number of farms, types and locations of pollutant sources, management practices in place, percentages without management practices, effectiveness of management practices, and a summary of data and discussion of sources.

The EIR will rely on the Existing Conditions Report, information provided in reports submitted to the Regional Water Board under the current waiver program, and additional relevant information to describe baseline conditions. Information on some of the suggested conditions, such as the effectiveness of management practices and percentages of farms without management practices, will be used to the extent such information is readily available.

5. **The EIR should address each watershed within the Central Valley by irrigation methods and practices.**

   The EIR will evaluate the impacts of the proposed Long-term Program. The Long-term Program may address irrigation methods and practices as well as other important factors.

6. **The EIR must evaluate all existing and potential management practices. The potential impacts to groundwater from management practices required to protect surface water must also be evaluated.**

   The EIR will evaluate the potential environmental effects of management practices that growers may adopt in response to the proposed Long-term Program. This evaluation will include potential impacts to groundwater from these management practices.

7. **The EIR must provide a full assessment of the public health impact of continued agriculture in the Central Valley. Mitigation measures should include identifying alternative water supplies for communities whose supplies have been rendered unusable by agricultural practices.**

   The EIR will include an assessment of potential public health impacts from the adoption of the proposed Long-term Program. A broader assessment of potential public health impacts (and benefits) of continued agriculture in the Central Valley is beyond the scope of the Regional Water Board's water quality authorities.

8. **In the event that the alternative program will continue to allow some groundwater degradation to occur, a fee for significant but unavoidable cumulative impacts should be assessed that will be used to mitigate the impacts (e.g., treatment).**

   Imposing such a fee would require Legislative action to give the Regional Water Board authority to charge such fees. The scope of potential Regional Water Board actions evaluated will be limited to actions for which legal authority exists.

9. **All feasible clean up and abatement measures should be evaluated for contaminated groundwater aquifers.**

   The Regional Water Board will consider potential cleanup and abatement activities, including evaluating feasible cleanup and abatement measures for contaminated groundwater aquifers, in the Long-term Program.

10. Expanding regulation of agriculture could result in loss of farmland due to increased expense. Negative environmental impacts due to loss of farmland should be considered, including: loss of habitat, reducing groundwater recharge, reducing flows in surface waters, and climate changes caused by increased urbanization.

Regional Water Board staff agrees that the EIR should consider potential environmental impacts due to potential loss of farmland in response to increased regulatory costs. These potential impacts will be considered in the development of the EIR.

11. Consider the impacts of not having an irrigated lands regulatory program.

Since a regulatory program is already in place for irrigated lands, the no action alternative of the EIR will consider continuation of the current program. The environmental impacts of discontinuation of the irrigated lands regulatory program completely will not be evaluated, since such an alternative is not consistent with the Porter-Cologne Water Quality Act requirements to regulate discharges of wastes to waters of the State.

12. Impacts to groundwater should not be a factor considered in the EIR.

The California Environmental Quality Act (CEQA) requires that an EIR include consideration and discussion of the environmental impacts of a proposed project. Consideration of the impacts to groundwater from the proposed Long-term Program, whether the program establishes regulations for discharges to ground water or not, is an essential part of the analysis.

J. Monitoring and Reporting Requirements

1. The Long-term Program should allow for reduced monitoring for already characterized water bodies, legacy pesticides, and where agricultural sources are not identified as the cause of a water quality exceedance.

Regional Water Board staff agrees that spending limited resources on monitoring (see response to comment B.2) where the monitoring is of limited value should be reconsidered. The monitoring and reporting program (Monitoring and Reporting Program Order No. R5-2008-0005) for the current irrigated lands regulatory program Coalition Group Waiver allows for flexibility in the design of the monitoring program. Flexibility in monitoring requirements for situations where continued monitoring will provide little information will be considered in the development of the Long-term Program.

2. **Continued watershed scale analyses are important to determine the effectiveness of the program. Many non-agricultural factors including wildlife and suburban inputs should be examined to identify their role.**

   Regional Water Board staff agrees that monitoring is necessary to ensure that the program is effective. The watershed-based monitoring that is being conducted under the current program has been effective at characterizing water bodies receiving waste from agricultural lands without imposing monitoring requirements on each grower. In some cases, receiving water monitoring has made it difficult to determine whether agriculture is causing water quality problems because of other land uses within the watershed. Mechanisms for consideration of non-agricultural influences will be evaluated in the development of the Long-term Program.

3. **Monitoring sites should be prioritized based on location (hot spots) or impacts to beneficial uses.**

   Regional Water Board staff agrees that the Long-term Program should include the flexibility to prioritize monitoring locations. The monitoring and reporting program for the current irrigated lands regulatory program coalition waiver allows for this flexibility. Continuing the current monitoring program's flexibility will be considered in the development of the Long-term Program.

4. **The Long-term Program should require monitoring of water usage and the types of pesticides being used.**

   Water use reporting could provide useful information to the extent that water use can be reliably related to water discharged from a grower's field. Water use reporting will be considered in the development of the Long-term Program, as a potential method for assessing implementation of improved irrigation management practices.

   Pesticide use is currently reported to County Agricultural Commissioners. This information is readily available through the Commissioners and Department of Pesticide Regulation. The Regional Water Board currently requires the Coalition Groups to analyze this information when preparing monitoring plans and management plans. Continuation of this requirement will be considered as part of the Long-term Program.

5. **The Long-term Program should support the development of a regional monitoring program. A State funded ambient monitoring program should be used to determine program effectiveness instead of grower subsidized ambient monitoring.**

   Regional Water Board staff agrees that monitoring conducted as part of the Long-term Program should have as its objective the evaluation of water quality impacts from agricultural land discharges and a determination of whether or not these discharges are causing exceedances of applicable water quality objectives. In waters that are primarily agricultural effluent dominated (agricultural drains in the Central Valley) this is fairly straight-forward. In waters that are influenced by a variety of land and water use practices, this is more complicated. It should not be the sole responsibility of the irrigated lands community to define ambient water quality conditions of watersheds with multiple potential waste inputs (urban areas, industrial, municipal, dairies).

   The Regional Water Board is currently in the development stage of a comprehensive regional ambient water quality monitoring program for the Central Valley (under the State Water Board's Surface Water Ambient Monitoring Program). During the development of the Long-term Program Regional Water Board staff will consider the feasibility and appropriateness of coordinating monitoring requirements with the regional ambient water quality monitoring program.

6. **Consider photographic monitoring of before and after implementation of management practices instead of ambient water quality monitoring.**

   Flexibility to use photographic monitoring as a substitute for certain types of ambient water quality monitoring will be considered in the development of the Long-term Program.

K. Non-irrigated Pasture and Managed Wetlands

1. **Non-irrigated pasture and dry land farming should not be part of the Long-term Program because there is a clear lack of evidence that these activities are contributing to water quality impairments. Resources would be best spent continuing to focus on irrigated lands which have more intensive agriculture with a greater use of pesticides and fertilizers.**

   For some agricultural operations, it may be more appropriate to develop a program that considers all aspects of ranch/farm operations that potentially impact water quality – as opposed to the current program that focuses only on irrigated lands. The intent is not to add non-irrigated land to the existing program, but rather to develop and evaluate an alternative program that

would more broadly address any potential water quality concerns from ranching and farming operations. For example, if this alternative program were to apply to cattle ranching operations (which are principally above the Central Valley floor), there would be consideration of irrigation discharge from pasture and other crop land, runoff from corral areas, stream bank and vegetation protection from concentrated grazing, stream channel modifications, and erosion from roads and upslope areas. The objective, in part, would be to have one program to address any water quality concerns from agricultural operations as opposed to having an owner/operator comply with several separate Regional Water Board non-point source pollution programs.

2. **Including non-irrigated pasture in the Long-term Program will allow focus on the entire ranching operation especially when applying a management practice based approach.**

   Regional Water Board staff agrees that a program that covers all agricultural operations may be a better way to address water quality concerns in the Long-term Program. See the response to comment K.1.

3. **Wetlands should remain in the irrigated lands regulatory program. Wetlands are often farming operations and they discharge a lot of water to State waters.**

   Where wetlands are farming operations, discharges associated with these operations would be subject to the requirements of the Long-term Program. In cases where wetlands are not farming operations, there is a clear distinction between wetland operations and farming operations. Following are some options for consideration of wetlands in the Long-term Program:

   - Include specific categorized requirements for wetlands in order to better address these discharges.
   - Continue to address wetlands in the same manner as the current waiver program.
   - Consider regulating wetlands under another Regional Water Board program.

   Regional Water Board staff will be evaluating these options based on measures such as: costs to growers and the State, estimated effectiveness, efficiency, economic effects, fairness/equity, and potential environmental effects. The recommended alternative will be based on this evaluation.

4. **Inclusion or exclusion of "managed wetlands" should depend on the outcome of the State Water Board's Wetlands and Riparian Areas Policy.**

   Regional Water Board staff will be coordinating with the State Water Board as the Wetlands and Riparian Areas Policy develops. Wetlands and Riparian Areas Policy information, as it becomes available will be considered in the development of the Long-term Program.

5. **Nurseries are big polluters, and should be considered under the Long-term Program.**

   Potential water quality impacts from greenhouses and nurseries will be considered during the development of the Long-term Program. Whether discharges from greenhouses and nurseries will be most effectively regulated under an irrigated lands program or alternative Regional Water Board program will also be considered.

6. **The inputs and potential threats to water quality of greenhouse operations and managed wetlands should be considered. The efficiency of the program as a whole should be evaluated as compared to a separate program for greenhouse operations and/or managed wetlands.**

   Regional Water Board staff agrees that threat to water quality should be considered when deciding whether and/or how greenhouses and managed wetlands would fit in the Long-term Program. As suggested, program efficiency will be considered as alternatives for regulating wetlands and greenhouses develop (see response to comment K.3 and K.5).

L. Consideration of Groundwater in the Long-term Program

1. **The Regional Water Board has no authority to impose basin-wide groundwater monitoring on agriculture unless they can identify where groundwater is impacted by irrigated agriculture.**

   The California Water Code allows the Regional Water Board to require someone who has discharged, is suspected of having discharged or is currently discharging wastes that could affect water quality to furnish technical or monitoring program reports. This section of the Water Code also requires the Regional Water Board to identify the evidence that supports requiring someone to provide a monitoring program report [California Water Code section 13267(b)(1)]. To the extent that the Long-term Program addresses groundwater monitoring, the necessary justification for that monitoring will be provided.

2. **Groundwater should not be included in the Long-term Program, or the Regional Board should identify information in support of the need to include groundwater in the Long-term Program.**

   The Existing Conditions Report will include information that identifies the groundwater problems potentially caused by irrigated agriculture. This and other information will be considered in evaluating the need to include discharges to groundwater in the Long-term Program (see response to comment F.2).

3. **The feasibility of including groundwater in the Long-term Program should be considered given that coalitions may have multiple groundwater basin characteristics within their boundaries and there may be different groundwater issues in different areas.**

   Regional Water Board staff recognizes that coalitions may have multiple groundwater basin characteristics with different groundwater issues. The feasibility of including groundwater in the current surface water coalition-based model will be evaluated.

4. **How will the Regional Water Board determine which groundwater basins to include in the Long-term Program?**

   If the Regional Water Board includes groundwater in the Long-term Program, all groundwater basins within the Central Valley, as identified by the Department of Water Resources (DWR) Bulletin 118, will be considered for inclusion. Alternative approaches to be evaluated include potential threat to water quality, or a groundwater vulnerability approach similar to DPR's Groundwater Protection Program.

5. **How can groundwater problems be traced to agriculture as opposed to natural sources or other sources such as septic tanks and wastewater treatment plants. If a problem is found, how would growers be expected to fix the problem?**

   Regional Water Board staff recognizes that in some cases it may be difficult to determine the source of a pollutant in groundwater. The ability to determine a pollutant source will be specific to each site and pollutant. Some sites will have obvious pollutant sources, while others will not. Some pollutants, such as certain pesticides, are specific to agriculture and certain crop types. In cases where it is difficult to determine the source of a pollutant, site specific factors such as surrounding land uses, other nearby potential pollutant sources, and groundwater gradient and flow direction can help to determine a pollutant source.

6. **Groundwater contamination found today may have been caused prior to startup of the existing farm, or by farming practices no longer in existence (e.g., DBCP, a soil fumigant banned in the late 1970's). Also, the slow movement of groundwater will cause major problems in determining if changes in farming practices are improving groundwater quality, while expensive monitoring continues.**

   The complexity of tracing groundwater problems due to legacy problems, relative age of groundwater, movement of groundwater, and multiple sources will be considered in the development of any Long-term Program alternative for regulating discharges from agricultural lands to groundwater. Reducing the number of monitoring constituents and frequency or coordinating monitoring activities with other programs will be considered in order to minimize monitoring expenses.

7. **Some lands do not have groundwater under them and some growers have no potential for impacting the groundwater basin. How will this be addressed?**

   The Regional Water Board will consider the vulnerability of groundwater to pollution in prioritizing where groundwater requirements and/or monitoring would be needed if groundwater is included in the Long-term Program.

8. **How will non-agricultural dischargers of wastes to groundwater be assessed their fair-share of program costs where the groundwater basin is impacted by others besides agriculture?**

   Other types of dischargers are being required to address groundwater under different programs such as the Regional Water Board's Dairy and Land Disposal programs. The Regional Water Board will consider the equity of any potential costs that would be born by irrigated agriculture and non-agricultural dischargers to ground water.

9. **Before creating another costly program, the datasets of existing groundwater monitoring programs (United States Geological Survey, California State Water Board, California Department of Public Health, California Department of Water Resources, United States Environmental Protection Agency, Bureau of Reclamation, and local counties) should be considered.**

   Other Central Valley groundwater monitoring program datasets will be considered to help identify potential groundwater impacts due to agriculture in the development of any Long-term Program alternative for groundwater (see response to comment F.2).

10. **Consideration should be given to having a separate groundwater program or combining existing programs for groundwater.**

    The Regional Water Board will consider the feasibility of a groundwater program that is separate from the irrigated lands program and also the idea of combining existing programs addressing discharges to groundwater in the Central Valley.

11. **Consider a staged approach that uses existing data to prioritize areas of groundwater concern.**

    The Regional Water Board will consider a staged/prioritized approach if groundwater is included in the Long-term Program.

12. **The Long-term Program must include and prioritize groundwater protection and include groundwater monitoring, implementation requirements for management practices, milestones, timelines and consequences for noncompliance.**

    The Regional Water Board will consider each of these elements if groundwater is included in the Long-term Program.

13. **A coordinated regional groundwater monitoring approach should be developed and existing groundwater monitoring already being conducted by other agencies should be utilized.**

    A coordinated regional groundwater monitoring approach that utilizes existing groundwater monitoring programs will be considered if groundwater is included in the Long-term Program.

14. **Including groundwater in the Long-term Program could significantly increase monitoring costs. The State Water Board's Groundwater Ambient Monitoring and Assessment (GAMA) program has an estimated cost of 50 million for every 10-year cycle. Irrigated agriculture cannot be expected to pay this expense in addition to what is already being spent for surface water monitoring.**

    Some portions of the GAMA program are research type efforts and are thus very costly. Irrigated agriculture is not expected to pay for the GAMA program studies.

    Regional Water Board staff agrees that groundwater monitoring can be expensive. The cost to growers associated with any proposed groundwater monitoring program will be considered in the development of the Long-term Program.

15. **Even reducing nitrate sources to zero may not be enough to fix some of the contaminated groundwater basins.**

    Regional Water Board staff agree that reducing nitrate sources will probably not have immediate effects on the contaminated groundwater basins. However, reducing nitrate sources may prevent further degradation of contaminated groundwater basins and protect existing high-quality basins.

16. **The California Water Code requires that the Regional Water Board protect groundwater.**

    Regional Water Board staff agrees that groundwater must be protected. However, the extent to which it is necessary and feasible to address discharges to groundwater from irrigated agriculture will be examined in the development of the Long-term Program.

17. **Central Valley drinking water sources have been impacted by nitrates, we need to protect future water sources that are not yet contaminated.**

    Regional Water Board staff agrees that Central Valley groundwater drinking water sources must be protected from contamination. The existing and threatened nitrate contamination of drinking water sources will be considered in the development of the Long-term Program and EIR.

18. **Will there be a separate definition for a "groundwater discharger?"**

    A definition of "groundwater discharger" that is consistent with the Porter-Cologne Water Quality Act will be considered.

19. **What constitutes a "discharge of waste" to groundwater from irrigated agricultural activities?**

    Discharge of waste to groundwater can occur when excessive nutrients, pesticides, or salts not utilized by crops are leached to groundwater during irrigation and/or rainfall events.

20. **Does the "waste" enter groundwater, or does it move laterally to surface water and therefore is covered by the surface water irrigated lands regulatory program?**

    A portion of waste constituents from irrigated agriculture will typically move vertically down, possibly into groundwater, and a portion may runoff to surface water.

M. Working with Stakeholders

1. Actively work with coalitions, industry groups, and commodity groups to develop the Long-term Program.

Regional Water Board staff will be developing a stakeholder process and project timeline for the development of the Long-term Program. The stakeholder process will include a clear plan for actively working with coalition, industry, and commodity groups within the project timeline. The stakeholder process and project timeline will be made available to the public on the Regional Water Board's internet site so that interested parties and stakeholders will have a clear vision of the project timeline and at what points stakeholder input will be gathered.

2. Consider accepting comments on the long-term irrigated lands regulatory program staff report prior to moving into the EIR stage.

Regional Water Board staff intends to develop and accept comments on a staff report that will present Long-term Program alternatives, evaluation measures, and the staff recommended program. In addition, staff will be soliciting comments and recommendations from stakeholders on potential alternatives and evaluation measures prior to the development of the EIR.

3. Use paper mail and email to provide periodic updates regarding the progress of the Long-term Program.

Email will be used to provide periodic Long-term Program updates. Interested parties that do not use email and would like paper mail for periodic updates should contact Adam Laputz at (916) 464-4848 to be added to the paper mail list.

4. Use the Ag Alert to provide updates to the growers.

Regional Water Board staff will pursue publication of Long-term Program status and important news updates in the Ag Alert.

5. Given the large size of the irrigated lands regulatory program, an internet forum will be very useful to share and receive information; include a way for stakeholders to submit comments electronically.

As the stakeholder process is developed, an internet forum will be considered for sharing information.